QUICK LINKS

For Facilitators Only



Morning





Math Task: 5 Practices





Planning for Equitable Discourse



Equity Action Plan



Session Closure

Afternoon



Microteaching



Establishing Learning Alliances



Building on Equity – Day 2

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Building on Instructional Practice

Equity

Individual Tasks:

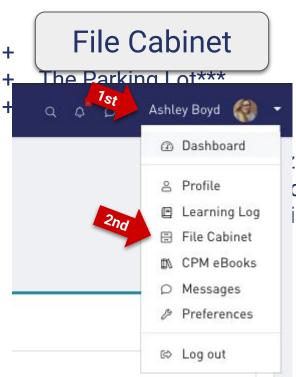
- + Sit at the table that matches your card sort.
- Get out your name tent.
- + Review your Equity Belief Sort. Consider:
 - + What belief do you want to shift this year?

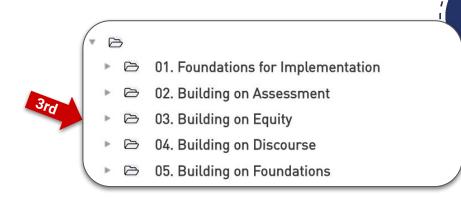
Team Tasks:

- + Introduce yourselves.
- Would you rather: FACILITATORS' CHOICE (ex: hike or ski? Soft shell tacos or hard shell tacos?)
- + Share something from your paper plate with your new teammates.

TechinTgip

Cetiting Session Resources





cation of)
documents so they are easily accessible
ild upon across this three day learning event.

Icebreaker Goals

CCA2 Lesson 1.1.1 Solving Puzzles in Teams





Math Goal:

Work together as a team to create specific shapes.



Team Goal:

Putting ideas on the table.

Icebreaker

CCA2 Lesson 1.1.1 Solving Puzzles in Teams





As a team:

- Have one eBook open to CCA2 Lesson 1.1.1.
- Read all of 1-1, including the Team Roles.
- Make each of the shapes in 1-1 out of a single loop of yarn. You may make the shapes in any order.
- When you make one of the shapes successfully, Resource Managers call the teacher over to celebrate your team's accomplishment.

Icebreaker Debrief

CCA2 Lesson 1.1.1





Whiparound:

How does the team goal of 'putting ideas on the table' support equitable teamwork?

Social Emotional and Academic Development (SEAD)

Agency

Combines identity (who we are) with what we can do

Belonging

Sense of fitting in or feeling like you are an important member of a group

Discourse

Ways of representing thinking, talking, agreeing, and disagreeing

Identity

Deeply held beliefs about our ability to participate and perform and use math effectively in our lives

Opening Vision



"Equity isn't a destination but an unwavering commitment to a journey."

"The problem arises when we view this leader as an equity 'expert' rather than a dedicated, lifelong equity student."

(Educational Leadership, Jamila Dugan, 2021)

Day 2 Outcomes



Together we will:

- Reflect upon how math identity, math agency, shared math authority, and classroom status affect students as independent learners.
- Curate strategies that elevate student status and develop independent learners in order to create an equitable classroom culture.
- + Enhance lesson plans to create a more **equitable classroom culture**.
- + Continue developing an Equity Action Plan to support the development of independent learners.

Agenda



Morning



Opening



Math Task: 5 Practices



Planning for Equitable Discourse



Lunch

Afternoon



Microteaching



Establishing Learning Alliances



Equity Action Plan



Session Closure

REDI (Race, Equity, Diversity, & Inclusion) Working Agreements



REDI Working Agreements

Stay engaged.

Speak your truth.

Experience discomfort.

Expect and accept non-closure.

Grace with yourself.

Grace with others.

Learning Event Intentions



What is the pact that you will make with yourself today?

- + "I intend to..."
- + "I give myself permission to..."
- "I will give myself the opportunity to..."
- + "I will show myself grace by..."
- "I will challenge myself by..."
- + "I will show up for myself by..."

"What is powerful about agreements is that they are a pact you make with yourself."

-The Equity Lab

Questions, Comments, and Concerns

- Day 1 Feedback
 - Paste feedback here.
 - Paste feedback here.
 - Paste feedback here.
- Parking Lot



Representation



Notice and Wonder

Individually

 Open the NY Times Article by searching for "Faces of Power 80%". Read the opening paragraph.

As a team

- Find the section of the article that matches your ratio from the Team Sort.
- Discuss What do you notice?What do you wonder?



Call over the learning event facilitator for team questions.

R/R Ensure all voices are heard.

T Manage the allotted time.

F Begin the discussion.

Representation: Debrief





Whiparound

Recorder/Reporters

Share a notice or wonder your team discussed.

Representation





Think-Pair-Share

- Think about how the quote on the next slide connects with the NY Times Article. (1 min)
- + **Pair** up, and share with your elbow partner. (4 min)
- + **Share** with your team. (4 min)

Representation



"Successfully teaching students from culturally and linguistically diverse backgrounds — especially students from historically marginalized groups involves more than just applying specialized teaching techniques. It means placing instruction within the larger sociopolitical context... an understanding that we live in a racialized society that gives unearned privilege to some while others experience unearned disadvantage because of race, gender, class, or language. [Teachers] are aware of the role that **schools** play in both perpetuating and challenging those inequities."

(Culturally Responsive Teaching & the Brain, Hammond, 2015)

Put yourself in the shoes of your students.

Why (and how) do the things we noticed and wondered matter to them?

Student Representation in the Classroom



Who participates in class?

Whose ideas are shared?

Sounds like...

Whose voices are heard? By whom? How are different languages and cultures honored? Feels like...

Which students are seen as capable? Who feels welcome and safe? How?



What does your classroom

look, sound, and feel like?



Why does representation matter in our classrooms?



Teacher

Brain Science Connection



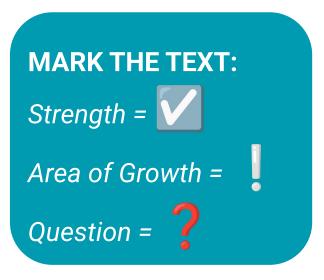
"The brain needs to be a part of a caring social community to maximize its sense of well-being. Marginalized students need to feel affirmed and included as valued members of a learning community."

Ready For Rigor Framework

increase intellective capacity



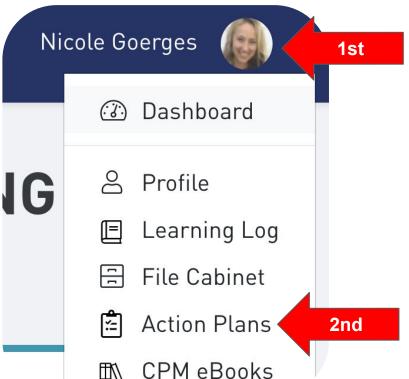
Locate the Ready for Rigor Framework on p. 17 or on the Links Document





Teacher

Accessing the Equity Action Plan





Equity Action Plan- Awareness



Your Task:

Complete the Awareness Section of your Equity Action Plan.



- Know and own your cultural lens
- Understand the three levels of culture
- Recognize cultural archetypes of individualism and collectivism
- · Understand how the brain learns
- Acknowledge the socio-political context around race and language
- Recognize your brain's triggers around race and culture
- Broaden your interpretation of culturally and linguistically diverse students' learning behaviors



Reflection on Learning Target

Learning Target:

Connect learning from Day 1 by engaging with the *Ready for Rigor Framework* Awareness section.

Are you able to:

- 1. Reflect on representation and its connection to the brain's need for connection to a community?
- 2. Reflect on how awareness is currently present in your practice?

Agenda

Day 2



Morning



Opening



Math Task: 5 Practices



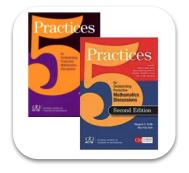
Planning for Equitable Discourse



Experience the 5
Practices as a way to
orchestrate equitable
mathematical discourse
and support students as
independent learners.

Learning Target:

Resources







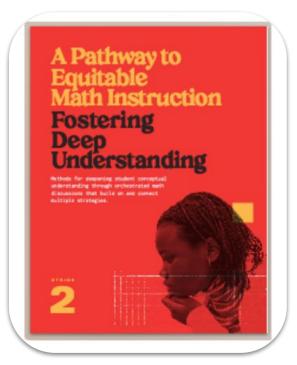


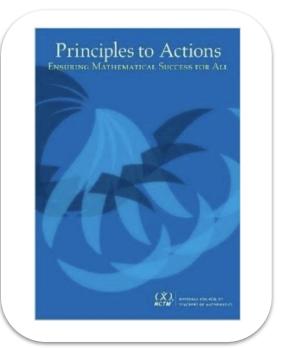
What are the 5 Practices?

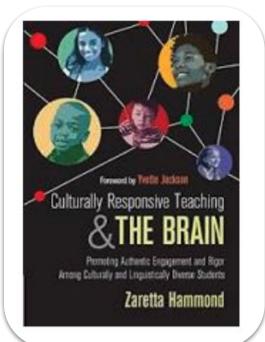
- Anticipating
- + Monitoring
- + Selecting
- + Sequencing
- + Connecting

Culturally Responsive Teaching Resources









Modeling the 5 Practices



As you **engage** with your team in the mathematics using a student lens today, think about this question.

How do the 5 Practices support students in becoming independent learners?

Working Agreements



Choral Reading

- We agree everyone's thinking and ideas matter.
- We agree to value thinking ahead of knowing.
- We agree confusion is a part of learning.
- We agree to ask questions until it makes sense.
- We agree that helping is not giving answers.
- + We agree to say our "becauses."

Teacher's Promise



My Promise

- + I will not w
- + I will r
- + I will supp
- + I will learn v

Optional Slide Customize based upon
your intentions as a
facilitator, consider
making poster and
hanging it in the room.

ons as a positive



Getting Started







Please get one cup with pennies and hand sanitizer.



Please get one bag of two-colored cubes and calculators.



When instructed to do so, help your teammates locate problem 2.9 in their Participant Handbook.



Please get a sheet of chart paper and a box of markers. Fold the chart paper so it has four quadrants and put in the middle of the table. Pass out a different color marker to each team member.

Constructive Conversations



Use I or we statements whenever possible.

- + One idea could be...
- + I see what you are saying. Here's another way of looking at it.
- + I am not sure I understand. Would you explain your reasoning?
- I agree because...
- + I am not sure that would work because...
- + What am I missing in my idea?
- + Are we making any assumptions?
- Is there a different way we can do this?

Math Problem Goals





Math Goal:

- Make sense of a proportional situation and represent it.
- Develop connections between the representations.



Team Goal:

Collaborate and actively listen to your team because everyone's thinking and ideas matter.

Rough Draft Thinking



Think-Ink





Individually Read and Think about the following prompts. (3 min)

- + What do you know?
- What do you wonder?
- What questions might you have for your team?
- What strategies might you want to use?

Individually Ink your responses to the questions within your quadrant. Please do not begin solving the problem, *YET.* (2 min)

Pure Paradise Perfection

1. Two Cents Worth (4 min)







Facilitators: guide your team through the following steps.

- + Each team member has two pennies. Place a cup in the middle of the table.
- + Each team member takes turns sharing an idea from their quadrant. When you share, place one penny in the cup.
- + Repeat this process until all pennies are in the cup.
- + When all pennies are in the cup and everyone has given their "two cents worth", the team can start solving the problem.

2. Solve the Problem as a Team (16 min)

- As a team, decide on a path forward to solve this problem.
- + Flip your poster over and create your poster as a team.

Making Connections



Present Selected Strategies (15 min)

- Team presentations.
- Presenters answer clarifying questions.
- Record connections between your team's thinking and the team presenting on your quadrants.

Lesson Closure



Exit Ticket Stoplight (2 min)

- Write your name on the back of a sticky note.
- 4 On the front, write and respond to one of the following.
 - Today, I made a connection between...
 - Today, I still have a question about...
 - Today, my learning stopped because...
- Place your sticky note on the matching stoplight circle.

5 Practices

Information Processing

Teacher



INFORMATION PROCESSING

How does using the 5
Practices lesson
planning protocol
support students in
becoming independent
learners?

- Provide appropriate challenge in order to stimulate brain growth to increase intellective capacity
- Help students process new content using methods from oral traditions
- Connect new content to culturally relevant examples and metaphors from students' community and everyday lives
- Provide students authentic opportunities to process content
- Teach students cognitive routines using the brain's natural learning systems
- Use formative assessments and feedback to increase intellective capacity

5 Practices

Brain Rules Cont.



How does using the 5 Practices connect to the brain rules?

4. Attention drives learning.

5. All new information must be coupled with existing funds of knowledge in order to be learned.

6. The brain physically grows through challenge and stretch, expanding its ability to do more complex thinking and learning.



5 Practices

Reflection on Learning Target

Learning Target:

Experience the 5 Practices as a way to orchestrate equitable mathematical discourse and support students as independent learners.

Are you able to:

- 1. Identify how the 5 Practices promote equitable mathematical discourse?
- 2. Connect the 5 Practices to the Information Processing section of the Ready for Rigor framework?

Break - 10 min









Agenda

Day 2



Morning



Opening



Math Task: 5 Practices







Learning Target:

Apply learning about equitable teaching practices by planning a lesson.

Getting to Know One Another





1. Sit in course-specific teams.

- 2. Highlight some part of the following from your Mathography.
 - About you
 - About you as a student
 - About you as a math student

Preparing a Lesson



"Planning is a premier teaching skill — one that has a significant impact on the quality of students' instructional experiences in the classroom."

(The Teaching Gap, Stigler and Hiebert, 2009)

Reflecting on the 5 Practices





How did your experience solving Pure Paradise Perfection model a classroom for equitable discourse?



Components of an equitable lesson plan



An equitable lesson plan includes:

- Qualities of an equitable environment that allows all student to belong.
- Purposeful questions to uncover student thinking.
- Wait time for students to think.
- Teacher moves that validate student thinking.
- Randomly calling on students.
- T.I.P. (**Think-Ink-Pair**) time.
- + A **strong launch** into the lesson.

Writing an equitable lesson plan



Planning steps for an equitable lesson plan:

- Pick a rich task, and solve it.
- 2. Create a learning goal.
- 3. Start planning the lesson with the following in mind:
 - a. How will I launch this lesson?
 - b. What purposeful questions will advance student learning?
 - c. How does the lesson connect back to the goal?
 - d. What teacher moves or STTSs will I incorporate into the lesson?

What is a Rich Task?



A rich task should:

- Build on students' current understanding of a math concept.
- Provide opportunities for students to engage in exploration.
- + Allow for multiple entry points into the task.
- * Require students to provide **justification or explanation**.
- Encourage students to make connections between concepts.
- Provide the opportunity to look for patterns, make conjectures, and/or form generalizations.

Planning for Equitable Discourse Identifying Rich Tasks





Identify a rich task: (10 min)

- + Preview problems in Chapter 1 together as a team.
- + Choose one problem that meets the criteria for a rich task.
- + Make sure everyone in your team agrees on your <u>one</u> problem.
- Solve the math problem independently.
- + Share your strategies and brainstorm other possible strategies as a team.

Establishing the Learning Goal



"Formulating clear, explicit learning goals sets the stage for everything else."

(Preparing Teachers to Learn from Teaching, Hiebert et al., 2007, p.57)

Creating Effective Learning Goals





Your Task:

+ As a team, write a learning goal for your rich task.

Learning Goal

<u>Definition</u>: What students will understand about math by the end of the lesson.

+ The learning goal can be rephrased for students, but is the core understanding that will drive a teacher's instructional moves.

Examples:

- + Students will make connections between multiple representation of ratios.
- + Students will represent growth in a dot pattern in multiple ways.

Creating an Equitable Lesson Plan





Your Task:

- Make a copy of the CPM Lesson Plan from the file cabinet.
- + Fill out the CPM Lesson Plan, keeping the following in mind.
 - How will I launch this lesson?
 - What purposeful questions will advance student learning?
 - How does the lesson connect back to the goal?
 - What teacher moves or STTS will I incorporate into the lesson?

Creating Equitable Environments



Are you creating an equitable environment for discourse?

- + How does your launch provide an entry point for all students?
- + What STTS did you include to support students and teams?
- + How does your lesson share math authority with your students?
- + How are your students making connections to the goal of the problem?
- + How do your questions allow equitable discourse within the team?
- + How will you provide enough wait time when asking for student responses?

Closure



What is one thing that you can commit to adding to your daily math practices from the 5 Practices?

Add this to your plate.



Reflection on Learning Target

Learning Target:

Apply learning about equitable teaching practices by planning a lesson.

Are you able to:

- 1. Identify a rich task from your course?
- Write a clear learning goal that articulates what students will understand about mathematics?
- 3. Include strategies and practices to intentionally promote equity within your lesson?

Lunch Time

+ See you at xx:xx PM









Agenda

Day 2



Afternoon



Microteaching



Establishing Learning Alliances



Equity Action Plan



Session Closure

Learning Target:

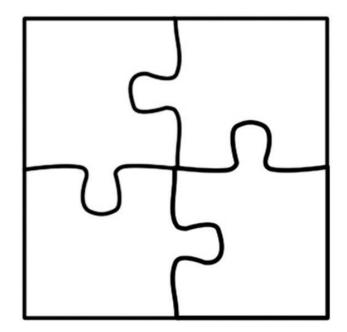
Connect concepts of brain science, status, and agency to a professional learning practice: microteaching.

Brain Structures & Culture



Each team has one of the following categories for their team's puzzle pieces.

- + Cellular Structures
- + Nervous System
- + Deep Culture
- + Neocortex



Establishing Learning Alliances

Brain Structures & Culture





Jigsaw

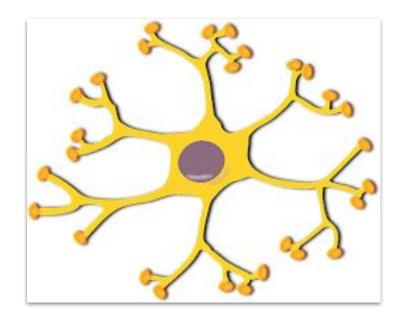
As a team:

- + Take turns reading the information on your puzzle piece in this order:
 - 1) Name & info
 - 2) Background information & function
 - 3) Impact on learning
 - 4) Culturally responsive brain rule
- + Synthesize the following on your graphic organizer for your team's puzzle:
 - Write down 3 facts
 - + Create a #Hashtag (i.e. #keepcalmandthinkon)
- + Recorder/Reporters, please be ready to share out with the whole group.

The Brain & Culture Jigsaw Debrief



Cellular Structures



The Brain & Culture Jigsaw Debrief



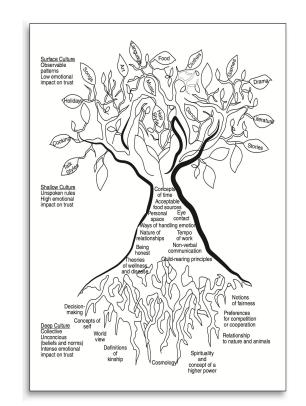
Nervous System



The Brain & Culture Jigsaw Debrief



Deep Culture



The Brain & Culture Jigsaw Debrief



Neocortex



Equitable Collaboration - How?



"Learning for <u>all</u> is the reason we collaborate."

Ken Williams, https://unfoldthesoul.com

Mathematics Identity and Agency



How does mathematics identity and agency play out in collaborative work?

How does your mathematics identity affect your work with peers?



Mathematics Identity and Agency Debrief





Team Whiparound

- + How does mathematics identity and agency play out in collaborative work?
- + How does your mathematics identity affect your work with peers?

What is it?



Microteaching allows teachers to fine-tune their teaching skills in a low-risk, simulated classroom environment.

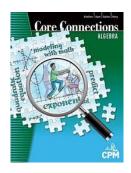
Feedback



Keep the following questions in mind throughout the next problem.

- + How does the use of the Math Language Routine support productive struggle?
- + What potential barriers to student learning still need to be overcome?
- + What suggestion do you have to make the student experience more equitable?

CCA Lesson 4.2.5 Problem 4-78







Math Goal:

Justify the choice of strategy for solving a system of linear equations.



Team Goal:

Pose questions to explore and clarify thinking.

Math Language Routine



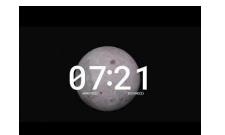
Math Language Routine: Stronger and Clearer

- Pre-Write: Write your strategy ideas, reasoning, questions about a problem, etc.
- Think: Students think about what to say to their first partner to explain what they are doing or did to solve the problem. (2 min)
- Structured Pairing: Follow teachers directions to find a partner. (12 min)
- In Pairs:
 - a. Partner A shares with a goal of explaining reasoning clearly.
 - b. Partner B listens and asks clarifying questions related to justifying.
 - c. Switch partners, two or three more times.
- Post-Write: Write down final explanation (words, sentences, etc.). (2 min)











Team Roles

Α

В

Α

В

Round 1





Round 2



F



Round 3



R/R



Feedback and Debrief





Notice and Wonder

- What did you notice?
- What did you wonder?

How did the Stronger and Clearer Routine support productive struggle?
What potential barriers to student learning still need to be overcome?
What suggestion do you have to make the student experience more equitable?

Debrief







Turn and Talk (2 min)

What might microteaching look like in your PLC?

- Who would be involved?
- What would the structure look like?
- + How frequently might you want to meet?
- Do you need anyone else's support?

Microteaching

Reflection



What might you add to your plate? What might you remove from your plate?



Microteaching

Learning Target:

Connect concepts of brain science, status, and agency to a professional learning practice: microteaching.

Are you able to:

- 1. Identify new brain structures and their role in learning?
- 2. Consider strategies for elevating status and agency, both for teachers and students?

Break - 10 min

MORE MATH FOR MORE PEOPLE









Agenda

Day 2



Afternoon



Microteaching



Establishing Learning Alliances



Equity Action Plan



Session Closure

Learning Target:

Determine how a learning alliance is different from other types of teacher-student relationships.

Learning Alliance Jigsaw





Jigsaw Reading



Why Marginalized Dependent Learners Need an Ally and Validating Students' Experiences (p.89-92)



What is an Alliance and Features of the Learning Partnership Alliance (p.92-95)



Creating the Pact and Giving Dependent Learners the Basic Tools for Independent Learning (p.95-101)



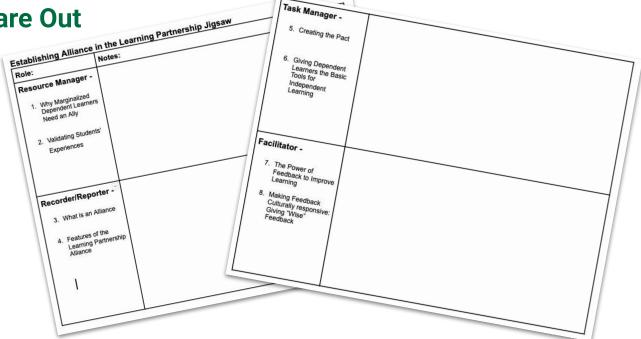
The Power of Feedback to Improve Learning and Making Feedback Culturally responsive: Giving "Wise" Feedback (p.101-106)

Learning Alliance Jigsaw





Jigsaw Share Out



How do learning alliances move students to be independent learners?

Team Poster



- Decide on a visual or analogy that shows how Learning
 Alliances move students to be independent learners.
- Create a stand-alone poster to represent and summarize Learning Alliances.



Ensure all materials are gathered and returned.

R/R Divide up tasks among team members to create the poster.

T Manage the allotted time.

Make sure everyone's voice is included.

Debrief





Carousel

As you view other teams' posters on Learning Alliances, consider the following.

- What connected to what you already knew?
- What extended or broadened your thinking in new directions?
- What challenges have come up in your mind from the ideas and information presented?

Revisiting Your Plate



Consider how developing learning alliances supports the development of independent learners.

How might you work to form learning alliances with your students? What are you currently doing? What might you try?





Rough-Draft Talk

Reflection on Learning Target

Learning Target:

Differentiate how a learning alliance is different from other types of teacher-student relationships.

Are you able to:

- Identify key features of a learning alliance?
- 2. Create a visual or analogy for learning alliances that is personally meaningful?

Agenda

Day 2



Afternoon



Microteaching



Establishing Learning Alliances



Equity Action Plan



Session Closure

Learning Target:

Consolidate learning by identifying moves that support the Ready for Rigor Framework.

Ready for Rigor Framework



Learning to put culturally responsive teaching into operation is like learning to rub your head and pat your stomach at the same time ... The trick is to get each movement going independently then synchronizing them together. The practices are only effective when done together.

(Culturally Responsive Teaching & the Brain, Hammond, 2015, pg. 18)

How do we challenge inequity?





Math Chat

- Each person needs one marker.
- The **Facilitator** will direct each team to a poster.
- Silently circulate to each poster, and record your response to the prompt on the poster.
- After one rotation, do a second rotation to read others' responses.

Math Chat Prompts



Math Chat





How do I challenge inequity by...

- + developing independent learners?
- + elevating status, agency, and identity?
- + building learning alliances?
- + reflecting on my own beliefs and culture?
- + ensuring every student feels a sense of belonging?

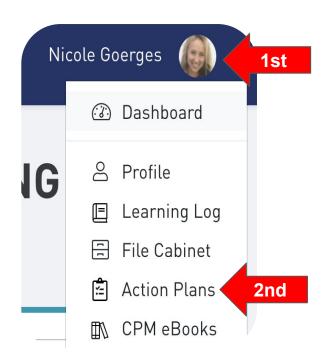
What are some tools and strategies for each area?

Accessing the Equity Action Plan

Teacher

Your Task:

- Work on any of the following sections in your Equity Action Plan.
 - + Information Processing
 - Learning Partnerships
 - + Community of Learners
 - Learning Environment





Reflection on Learning Target

Learning Target:

Consolidate learning by identifying teaching moves that support the Ready for Rigor Framework.

Are you able to:

- 1. Identify teacher moves that support specific aspects of equity?
- Revise your action plan?

Agenda

Day 2



Morning





Math Task: 5 Practices



Planning for Equitable Discourse



Afternoon



Microteaching



Establishing Learning Alliances



Equity Action Plan



Session Closure

Teachers Matter





Session Outcomes



Together we:

- + Reflected upon how **math identity**, **math agency**, **shared math authority**, and **classroom status** affect students as independent learners.
- Curated strategies that elevate student status and develop independent learners in order to create an equitable classroom culture.
- + Enhanced lesson plans to create a more **equitable classroom culture**.
- Continued developing an Equity Action Plan to support the development of independent learners.

Parking Lot



When We Know Better, We Do Better





Proximity Partners

- Stand up, push in your chair, touch 2 tables/desks, 3 walls, and a chair.
- The person closest to you is your partner.
- Share your response to one of the following:
 - ↓ I will take... off my plate so I can add...
 - + Instead of... I will...



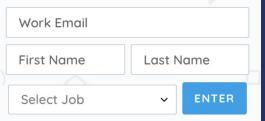




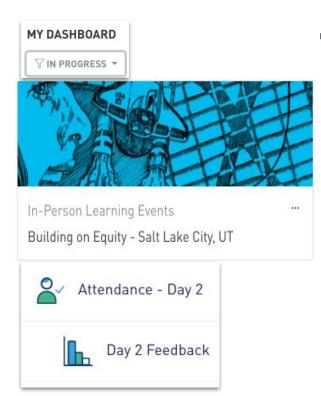
- + Register and get a 20% off code for online purchases.
- Enter to win a reusable flipchart! A winner will be drawn after every 20 entries!



Go to wipebook.com/cpm



- Parking Lot
- Attendance & Feedback
 - In the Portal
- Continuing Education Credit





← Update image to show a screenshot of your learning event.



